

over the eyes and inside of ears pale brown, chin, throat, chest, belly and front of thighs and under part of tail white; hair gray at the base, with a brown and yellow subterminal ring; crown and upper part of tail darker; feet pale, varied.

Inhab. Sierra Leone.

We have a young specimen of this species in the British Museum, presented by Col. Sabine, R. E.

It is at once known from the other *Gueveis* by the fulvous colour which is produced by the yellow subterminal rings of the hairs.

Professor Sundevall in his Monograph recognises six and cites four doubtful species (Vet. Acad. Hand. 1844, 190).

XX.—*The Birds of Calcutta, collected and described by*
CARL J. SUNDEVALL*.

[Continued from p. 110.]

7. *Pica rufa*, Vieill., Wagler, Isis, 1829, p. 751. *Rufa*, capite colloque nigro-fuscis; vitta alarum caudaque canis; remigibus plerisque totis, rectricibus omnibus apice nigris. Longit. $15\frac{1}{2}$ poll., cauda $9\frac{1}{4}$; ala 148 millim., tarsus 29. Iris rufo-fuscens. ♂ et ♀ similes.

In Bengal the place of our common magpie is supplied by this bird, to which in form and marks it bears a close resemblance, but the Indian bird is a little smaller and red-brown instead of white. Its common screaming sounds are like those of our magpies, but instead of that feeble indistinct sound which they make in spring and which is their only song, the *Pica rufa* sends forth clearer and stronger tones, which sound like *koolee-oh-koor!* and at times *hohlee-oh!* (*c f, c, c, Da Capo, c, d, c*). In this the Hindoos hear the word *Halitshatsha*, which is the name of the bird in the Bengal language. It is common and stationary in the neighbourhood of Calcutta. It is mostly seen in trees, and although a little shy like our magpie, it seemed not very willing to fly. In the stomachs of those I examined there were only insects, chiefly grasshoppers. It did not seem to despise meat, but I never saw this kind touch any remains of carrion.

8. *Lanius phœnicurus*, Pallas †.—*L. collaris* var. Gloger. *L. cristatus*, Linn. sec. Edw. 54. *L. lucionensis*, Briss., Linn. *L. superciliosus*, Lath. sec. le Rousseau, Levaill. Ois. Afr. 66. 2. (e Bengalia; nec *L. superciliosus*, Licht. Cat. et Gloger, ex Afr. = *L. rufus* var.) *L. melanotis*, Valenc. Dict. Sc. Nat. 40. p. 227.

* Translated from the 'Physiographiska Sällskapet's Tidskrift' by R. Bertram, with Notes by H. E. Strickland, M.A.

† This name is characteristic; the two older names, *cristatus* and *lucionensis* are altogether unsuitable.

Rufus, subtus albidus, macula alarum alba nulla; cauda unicolore, rufa. Remigum 4a sublongiore quam 3a; 5a longiore quam 2a. Rectrices extimæ circa 22 millim. breviores quam mediæ. Simillimus *collurioni* sed eodem jure quo *L. rufus* distinguendus; melius forsitan omnes conjungerentur. *L. collurio* differt, præter colorem maris, remigibus 4 et 5 brevioribus quam 3 et 2; cauda subbreviore, semper ex parte alba, penna extima circa 12 millim. brevior quam mediis; ala paullo longiore, tarsoque paullo brevior.

♂ perfecte coloratus. Superne totus læte cinnamomeus, unicolor; subtus albus, lateribus corporis dilute rufescenti-tinctis (nec roseis). Macula per oculos (ut *collurionis*) nigra, superne cum fronte latius albo limbata. Cauda unicolor, immaculata, colore dorsi. Ala colore simillima *collurionis* (macula obtecta definita, alba, &c.). Rostrum et pedes nigri. (Indiv. unicum Mus. Stockh. patriæ incertæ.)

♂ (hiemalis?) Similis præcedenti sed colore rufo minus puro, et in dorso sordide infuscato. Tinctura rufescens latius in pectore crissoque extensa. Latera trunci ventrisque, interdum pectoris, striolis transversis, undulatis nigricantibus. Alæ macula obtecta alba indefinita. Rectrices apice pallido limbata, carent autem striola fusca intramarginali junioris. Rostrum basi pallescens, pedesque nigro-fusci. Iris obscure rufescens. (Indiv. e Calcutta, Febr. Mus. Gyllenkr., Lund., Stockholm.)

♀ Ut *L. collurio* ♀ sed cauda vix albedo limbata, nisi apice, nec transversim undata, dorsum postice et caput lætius ferruginea. (Indiv. Calcutta, Martio; Mus. Stockh.)

Junior 1o anno. Simillimus *L. collurioni* ejusdem ætatis, cauda magis rufescente; pennis medio minus fuscis; extima tantum paullo rufescenti albedo limbata. (Indiv. e Bengalia in Mus. Lund.; "ex India," Mus. Stockh.)

Mensuræ adnotatæ (millimetra):—

	<i>L. phænicurus.</i>								<i>L. collurio.</i>				<i>L. rufus.</i>					Var. <i>superc.</i>
	♂ a	b	c	d	♀ a	b	Pull. a	b	♂	♀	♂ a	b	c	d				
Alæ...	90.	87.	85.	85.	88.	88.	83.	83.	96.	95.	95.	93.	100.	100.	100.	99.	98.	92.
Tarsus	23.	24.	25.	24.	23.	23.	23.	23.	22.	23.	21.	24.	23.	23.	23.	22.	21.	22.
Cauda ...	85.	86.	88.	92.	...	77.	...	78.	78.	80.	76.	...	80.	77.	79.

Lanius phænicurus ♂ a est supra descriptus "perfecte coloratus." Pullus b e Java? Mus. Stockh. differt colore pallidioro rostroque validiore, sed vix specie distinctus*.

L. rufus b, ex insula Rhodo; c et d, ex Ægypto, transitum ad varietatem "superciliosum" [Licht. nec Lath.] præbent.

L. collurio, omnes e Scania, adulti.

The above-described bird I saw several times in the neighbourhood of Calcutta in February, March, and latest on the 1st of May; it is therefore stationary. According to Pallas and Gloger it is even found in Siberia, and according to Brisson in the Philippine islands; but it is probably rare in Europe and

* This is the variety termed *L. magnirostris* in Bélanger's Voyage, which our author is probably correct in referring to *L. phænicurus*.—H. E. S.

Africa, and is there replaced by our common red-backed shrike (*L. collurio*), which extends from Sweden to the Cape, but which seems not to be met with in Asia. These two birds, which are not *remarkably* unlike in anything except the colour of the male, seem therefore to constitute an easterly and a westerly race of the same genus, each of which in its district goes through nearly all climates. As far as I could observe, the Asiatic species follows the same mode of living as ours; has the same flight and mode of perching on the top of bushes, the same syllable *tshack!* *tshack!* as well as restless but bold and powerful actions; and I doubt not that some remains of insects which I once found spitted on a thorny bush were a proof of its entomological habits. I could not learn anything about their propagation, and regret the shot which was fired at a male May 1st. Although the Bengalese recognise the common kinds of birds pretty well, and have a certain name for most species, yet all of whom I inquired were in doubt as to the name of this bird. Still they gave me the same name as that given to Buchanan (according to Lath. 'Gen. Hist.' under *Lan. rufus*), viz. *Curcutea*; but the same name is used for several other species, and according to the above-mentioned authority is even used for little screaming children. Edwards (*l. c.*) says that in Bengal it is called "*Charah.*"

9. *Edolius balicassius*, Cuv.—*Monedula philippensis*, Briss. *Corvus balicassius*, Linn. *et auct.* Drongup, *Levaill. Ois. Afr.* 173 (ex India, plumis frontis nimis elevatis). *Dicrurus lophorhinus*, Vieill. *D. balicassius?* *Vig. et Horsf. Linn. Trans.* v. 15. Rajah Shrike, *Lath. Gen. Hist.* (junior)*.

Niger totus, dorso cæruleo nitente, fronte lævi; cauda valde divaricata, corpore longiore; rostro convexo, carina rotundata; remige 4a reliquis longiore, 5a tertiam subexcedente. Long. 11—12 poll., cauda 6—7; ala 140—150 millim., tarsus 21.

♂ nitidior, plumis frontis leviter curvatis. Iris obscure rubra. Rectrices mediæ 105 millim., laterales 170. (Calcutta, 15 Febr. 1 Mai.)

♀ paullo minor, fronte lævi. Iris paullo fuscior. Rectrices mediæ 115 mill. extimæ 160.

Juv. opacus, fuliginoso tinctus in ala caudaque. (Calcutta Martio.) (*Juv. prima ætate forte = Lan. cærulescens*, Linn.?) Rectrices laterales longissimæ, valde arcuatæ, apice latiusculæ, rotundatæ. Lingua apice bifida lacera, similis *Lanii collurionis*. In aliis *Edoliis* (e. g. *E. malabarico*) rostrum acute carinatum, lateribus planatis, proportio remigum alia, &c.

This is one of the most common birds in the neighbourhood

* These synonyms are mostly erroneous. The bird in question is *Edolius macrocerus*, Vieill., and not *E. balicassius*. The species *E. cærulescens*, Edw. 56, is quite distinct.—H. E. S.

of Calcutta, where it is seen all the year round. The Hindoos call it *Pingja**; the Musselmans *Boojoonga*, and the Europeans *king of the crows*. It is fond of the light of the sun, and is therefore not met with in thickly grown groves, but much oftener in open spots. I saw them often sitting together in large numbers on a small solitary tree, where they made much noise and chattered, hopped and flew about, catching insects in their flight and attacking other birds that came near. They are often seen on a meadow and among grazing cattle, on whose back they like to sit, just like starlings and jays. Like the magpie they can both walk and hop at the same time, but they are not light on foot. Even their flight is heavy, not unlike that of the magpie. Their common tone is clear or chattering; sometimes a higher *srrr! srrr!* is heard; and in April they begin to sing charmingly, something like *Sylvia trochilus*. I found their stomachs always full of insects, principally *Achetæ*, which seem to be the common food for birds in Bengal.

10. *Dicrurus æneus*, Vieill.—Drongo bronze, *Levaill. Ois. Afr.* 176. *Edolius metallicus*, *Cuv.*

Ater, immaculatus, viridi-æneo nitens, plumis capitis oblongis, subsquamæformibus, nitidioribus; temporibus, mento, ventreque nigro-opacis.

Longit. 9 poll. Rectrices mediæ 30 mill. breviores quam laterales. Rectrices laterales corpore longiores, leviter arcuato-divaricatæ, apice rotundatæ, vix attenuatæ, in ♂ 115 millim., ala 120, tarsus 15. ♀ similis mari, sed paullulum minor. Rostro et vibrissis simillimus *Muscicapæ paradisi*. Nares setis paullo densius tectæ. Remigum 4a reliquis longior. Iris et lingua omnino præcedentis (*E. balicassii*).

Twelve or thirteen kinds of birds (which possess a remarkable external resemblance and are met with in the countries around the Indian sea) have been classified by ornithologists under one genus under the common name of Drongo, by which, according to Buffon, one of them is called in Madagascar (?). Cuvier calls them *Edolius*, and Vieillot *Dicrurus*. They have a long tail of ten feathers very much forked, rounded wings, generally of a black colour; the size of a thrush, and a great number of other resemblances. But notwithstanding these conformities, there are considerable grounds for dividing them into two generic groups, for which both the above-mentioned names can be employed. Those for which I have proposed to keep the Cuvierian name *Edolius* have their beak and feet formed as *Lanius*, and resemble

* This name is generally written *Fingah* according to Edwards, pl. 56, *Ed. cærulescens*, which I have not seen in Bengal, but which seemed to me to be the young of the above species just leaving their nests: they differ in having a shorter tail and white colour under their body, on which are dark spots.

our magpies and jackdaws in their way of living; the remaining ones, which may be named by the Vieillotian name *Dicrurus*, are, as far as I know, in these respects perfectly like *Muscicapæ*. By way of comparison one is reminded of almost corresponding resemblances in colour between *Turdus mindanensis*, *Bethylus leve-rianius* and our magpie, also between *Falco nisus* and *Sylvia nisoria*, &c., which yet indicate no near relationship, because important differences of form forbid it.

I saw *Dicrurus aeneus* several times in the neighbourhood of Calcutta in February and March. It remained lonely and gloomy in thick and shady groves between the branches of high trees. I never saw it on the plain. Like the *Muscicapæ* it sat at times quiet and watched an opportunity to catch insects in its flight, after which it returned to the same branch; sometimes it was seen restlessly hastening away between the thick branches. I never heard any sound from this species. In its stomach were found masses of insects, namely *Achetæ*, Coleoptera, &c., but no bees, which Levaillant considers to be the principal food of this bird.

11. *Muscicapæ paradisi*, Linn., Lath. no. 54.—Vardiolæ, Buff. Pl. Enl. 234. Tehitrec-bé, Levaill. Ois. Afr. 144, 145, 146 (ex India).

Var. a. *Pyrrhonorax*, Mœhr. *Musc. cristata alba*, Briss. *Pica papuensis*, id. sec. Seba. *Icterus maderaspatanensis*, id. sec. Ray. *Todus paradiseus*, Gm.

Var. b. *Curruca*? Mœhr. *Promerops indicus cristatus* et *Muscic. brasiliensis cristatus*, Briss. sec. Seba. *Muscic. cristatus capitis bone spei*, id. *Upupa paradisea*, Linn., Gm., Lath. *Muscicapæ castanea*, Temm. in Kuhlîi Nom. Syst. Buff.

Crista elongata, capite colloque toto nigro-æneis, limite coloris definito, recto; cauda gradata.

a. Alba, alis caudaque nigro striatis. Palpebræ coriaceæ, incrassatæ, cæruleæ (♂ Calcutta, 12 Apr. testiculis parum elatis, cauda caret plumis longissimis).

b. Cinnamomea, subtus cinerea, abdomine crissoque albidis. Ala et cauda unicolores immaculatæ. (♂ prope Ceylon, 14 Dec.) Cauda simplex; palpebræ vix incrassatæ. Jugulum obscurius cinereum, plumis paucis nigro-cæruleis.

Long. 8 poll., ala 96 mill. (in indiv. rufo 90); tarsus 18. Lingua plana, breviter triangularis, limbo membranaceo apice integro, subacuto. Cutis orbitæ in indiv. albo, coriacea, nuda, ut annulus latus, elevatus oculum cingit. Rostrum obscure cærulescens; pedes nigriores. Iris obscure rufescens.

This beautiful bird is perhaps commonly to be met with in India, at least it is common in our collections, and has been often described before, which appears from its many synonyms. Brisson in his 'Ornithology' has treated of it in six places under four different generic names. The reason of this arises from remark-

able dissimilarities between individuals, some being white, others a deep red brown, and of both varieties there are to be found some with soft wavy feathers in their tail, which are often twice as long as the real feathers of the tail. As I have seen no live ones except the two males above-described, which had both lost their long feathers, I can throw no light on this peculiarity; but that these individuals are of the same species might be proved by their perfect conformity in form and dimensions; for the above-described dissimilarity in the length of their wings is not always constant; one often sees somewhat larger brown and somewhat smaller white specimens. But *we cannot admit a difference in species without a certain difference in form*. It seems most likely that the brown colour is the winter plumage; that the white colour begins to appear about the commencement of the season of propagation through an organic chemical process in the feathers: the same process which so highly enhances the colour of our common birds, and causes the change in the ends of the feathers of a great number of them; also that the long feathers of the tail come to perfection in the third year or later, whilst the colour of the bird is previously brown, after which they become white with the other feathers. Both those which I shot must therefore have been younger males, which in the following year would have propagated for the first time, and have acquired the two long feathers. The change of the colour has already been pretty well proved by Levaillant, from the remarkable information he has given about a number of specimens, which he received dried from India, and among which were found some which were in the transition state between white and red-brown. He was not however aware of the fact of the existence of white males, which in spring-time lose the often-named ornament of the tail. Among the many nearly related species from Africa, there seem to be none which show similar changes of colour.

The brown male came in an exhausted state on board our vessel as she was sailing by Ceylon, about ten [Swedish] miles from the coast, and therefore out of sight of land. It had been driven out to sea the day before by a storm of rain and fog, which brought a great many birds and insects into the sea, and of which I got several. Notwithstanding its critical situation, its stomach was full of insects, and it was seen to catch several of them while flying. It sat a good hour in the rigging of the ship, after which it displayed a few times the common habit of the *Muscicapæ*, to fly and catch an insect and return to its former place. The white specimen was shot in the neighbourhood of Calcutta 14th April. I pursued it a long time while it actively hastened between the branches of some high thick groves in order to catch insects. It did not manifest the slightest desire to walk on the branches, or

whilst hanging thereto to search under them, but trusted principally to its wings. From none of them did I hear sound. Its flight was uneven and jerking when bent on a longer journey. This species also is called by the Hindoos *Pingja*.

12. *Muscicapa cærulea*, Gm., Lath. no. 36; Raffles in Lin. Trans. 13; Buff. Pl. Enl. 666. 1. L'Azur, &c., *Levaill. Ois. Afr.* 153.

Cærulea, margine frontis anguloque menti nigris; ventre crissoque albis. Ala nigra, plumis cæruleo marginatis antice gradata. Cauda rotundata et emarginata. ♂ (Serampore 16 Febr.) læte coloratus, rostro pedibusque plumbeis, macula occipitis lineaque juguli transversis nigris. Magn. *Sylvia*. Ala 70 mill., tarsus 15, cauda 72.

♀ dorso infuscato, alis caudaque fuscis, plumis grisescente marginatis; occipite juguloque immaculatis. Jun. cinereus, ventre albedo, capite margineque carpi cærulescentibus. Occiput et jugulum immaculata. Mus. Stockh.

This little beautiful bird, which is met with in the Philippine islands, Java, Sumatra, in all India and the south of Africa, I saw only once, without being able to observe it closer. It had its stomach full of all sorts of insects.

13. *Muscicapa nitida* (var. a)? Lath. Gen. Hist. Olivaceo-viridis, subtus flava, capite colloque cum jugulo cinereis, vertice obscuriore. Remigibus rectricibusque nigris flavescenti marginatis. Long. $4\frac{3}{4}$ poll., ala 64 millim., tarsus 14, rostrum e fronte 11. Statura, rostrum, cauda et pedes prioris. Vibrissæ majores. Ala differt: remige la parva, 2 et 3 gradatis, 4 et 5 æqualibus, longioribus quam reliquis (♂?).

Of this bird, of which I have seen only the specimen described, I know less than of the former*.

14. *Muscicapa* (gen. *Rhipidura*, Vig. †) *Sannio*, n. Broad-tailed Flycatcher, Lath. Gen. Hist. vi. p. 178. no. 34.

Nigro-cinereus capite nigriori, macula oblonga superciliari, fasciaque gulari albis. Cauda longa gradata, apicibus late albis, limite transverso.

Longit. $7\frac{1}{2}$ poll., ala 80 millim.; tarsus 18, digitus medius 10, cum ungue 15; cauda 97, rostrum e fronte 12; latit. 5. Ala unicolor. Vitta ventralis parva, longitudinalis albida. Fascia gulæ lata, utrinque attenuata, sub genas producta. (♂ 7 Febr. et 3 Mart.) (In utroque testiculi tumidissimi, hepar albidum. ♀ Similis, sed individuum deperditum.)

* This is the *Cryptolopha ceylonensis* of Swainson.—H. E. S.

† Vig. et Horsf. Linn. Trans. xv. p. 246. Tres species: *flabellifera*, Lath., *rufifrons*, Lath., *motacilloides*, Vig. et Horsf. Huc porro: *M. umbellata*, n. nigro-fusca, gula, ventre, stria longiore superciliari, apicibusque rectricum albis. Ala unicolor, 77 millim., tarsus 19, rostrum e fronte 15. E Java, Mus. Gyllenkrokianum. Collum antice colore dorsi; uropygium subrufescens.

His forte affinis *Gobemouche à lunettes*, Levaill. Ois. Afr. 152?

This little charming bird I saw solitary several times in February, skulking unobserved through thick bushes. In March and April it is met with oftener, several together, close to the ground, in places very shaded, mostly in low bamboo-groves. The male spread and raised its tail, jumped about the hen-bird with its wings hanging down along the horizontal branches or bamboo-roots, and they looked very active. One often sees the parabolic-shaped white-edged tail moving about without observing the bird itself, until it announces its presence by a clear note, or turns to menace a rival in its vicinity. Its stomach is uncommonly thin, almost like a skin; it was always filled with soft insects—flies, Hymenoptera, and others. The Bengalese name given to me was *Sa-boolbool*, which in Lath. 'Gen. Hist.' is brought under *Musc. paradisi*, where the present bird is called *Check-Dyal*, a name which I have not heard*.

15. *Muscicapa parva*, Bechst., Temm. Man.; Gloger, Eur. p. 401.

Grisea, subtus sordide alba; cauda cum tectricibus nigris, rectricibus utrinque 4, basi ultra medium albis, limite irregulari subtransverso.

♂ (Subæstivalis? testiculis parvis. Serampore 5 Apr.) colore saturatiore, capite fusciori, lateribus non canescente. Macula gulæ magna, fulva (paullo pallidior quam in *Sylv. rubecula*), undique albocincta, pectus non attingens. Ala 68 mill., tarsus 17.

Junior (♂ ♀ Febr.), caput superne colore dorsi, lateribus obsolete pallescenti maculatum. Collum antice album immaculatum. Ala 65—68 mill., tarsus 16½.

Rectrices laterales imo basi nigrae, latius in interioribus. Remiges fusca, intus rufescenti albidæ extus grisescenti marginatæ. Pedes et rostrum nigra. Iris obscure rufescens. Alæ et rostri forma omnino ut in *Muscicapa atricapilla*, sed ala brevior, tarsi longiores. Vibrissæ parvæ, nares membrana fornicata tectæ. Lingua brevis, integerrima, sinuato-triangularis, apice angulisque posticis subrotundatis, non membranaceo-marginatis!

This bird, which is seldom seen in Europe, seems to belong to the south of Asia. It was very common in February and March in the vicinity of Calcutta, where they lived in the same way as our *Regulus cristatus*. They came forth in large scattered flocks, hopping and climbing about the branches of trees, where they industriously collected insects, and uttered almost the very same sounds as the *Regulus*. I saw none with a yellow throat among them; they were all of the same colour. The above-described male with red yellow spots on its throat was quite alone (5th of April). For a long time I had seen none of this species, nor did I see any after that; it is therefore likely that they go to the

* This seems to be the *Rhipidura fuscoventris*, Blyth, and *R. pectoralis*, Jerdon.—H. E. S.

north during the summer. In the stomach I found the remains of winged insects (beetles), ants, &c. I have only had opportunity to compare the specimens I brought home with a single young European one, but I found a perfect conformity. The white borders on the tail however were rather different on all the specimens I have seen. The Bengalese name is *Tuntuni*, or the more correct one *Dhundhuni*, which is also used for some other common birds.

16. *Phænicornis peregrina*, Boie.—*Parus peregrinus*, *Linn. Syst. Nat.* xii. 342 (? an ♀). ♂ *Mus. Carlss., Gm., Lath.* *Parus malabaricus*, *Gm., Lath.* ex itinere Sonnerati. *Parus coccineus*, *Gm.* *Motacilla cinnamomea*, *Linn., Gm.* *Muscicapa flammea* var. *b*, *Lath.* L'Oranor, *Levaill. Ois. Afr.* 155 (e Ceylon).

Saturate cinerea, ventre albo, remigibus apice immaculatis. ♂ genis colloque antico nigris, pectore uropygioque fulvo-aureis, rectricibus utrinque 4 valde gradatis, extrorsum oblique luteis. Alæ nigræ, vitta angulata lutea, e basi pennarum cubitalium et fascia media in primariis 6 ultimis. Long. 6 poll., ala 68 millim., tarsus 15 (Calcutta 1 Maii).

♀ seu ♂ jun. ? pallidior collo antico cum regione rostri albidis, pectore flavescenti tincto. Uropygium, fascia alarum et latera caudæ ut in mare, sed dilutiora. (Mus. Stockh.) Rostrum validum, acute carinatum. Nares membrana parva fornicata tectæ. Vibrissæ parvæ. Lingua crassa, late oblonga, planata, apice lacera, non bifida. Hæc, ut fascia alarum, pictura uropygii et laterum caudæ toti generi communia sunt.

This splendid little bird does not seem to be common about Calcutta; I saw it only once. In its actions as well as colour it bears a great resemblance to *Sylvia phænicurus*, as was even visible in the wagging of its tail. It had insects in its stomach; I heard no sound from it. The Bengalese name given me was *Pawi*.

[To be continued.]

XXI. — Notes on four new Genera of Crustacea. By ADAM WHITE, M.E.S., Assistant in the Zoological Department of the British Museum.

[With a Plate.]

Family PINNOTHERIDÆ.

XANTHASIA, White. This genus is distinguished from *Pinnotheres* by the extreme roughness and irregularity of the upper surface of the carapace, the extreme bulging of the tail in the female, which has a wide prominent rounded keel down the middle; the legs are short and cylindrical; the claws thick, hooked and sharp-pointed. The front of the carapace projects, and on